ABSTRACT OF THE DISCLOSURE

A discomfort index, S, is calculated with an equation, $S = 0.3135 \times (\text{Loudness value}) + 3.4824 \times (\text{Tonality value}) - 3.1460$. This equation uses a loudness value and a tonality value, both psychoacoustic parameters obtained from a sound from the image forming apparatus at a location $1.00\text{m} \pm 0.03\text{m}$ apart from an end of the image forming apparatus. A sound caused at the time of charging an image carrier is improved so that the discomfort index S satisfies $S < -0.5$.